

REMARKS

Claims 1-2, 4-5, and 7-12 are pending in the present application, claims 3 and 6 having been cancelled without prejudice or disclaimer. The Office Action and cited references have been considered. Favorable reconsideration is respectfully requested.

The Examiner and his supervisor, Ms. Jan Ludlow, are thanked for the courtesies shown during the interview on April 13, 2010. This response is presented in accordance with the discussions during that interview. Although no agreement was reached with respect to allowability of the claims, the Examiners indicated that they would have to consider further whether amendments to claim 1 to recite that the upper substrate was unitary would define over Qiu. However, they agreed that if the claim was amended to recite that the raised grid lines were on the upper surface of the lower substrate, that would define over Brown. Further searches would have to be done.

During the interview, the Examiners requested that Figure 1 be labeled as Prior Art. Amended drawings are attached.

Claims 1-2, 4-5, and 7-9 were rejected under 35 U.S.C. §103 as being unpatentable over Qiu (U.S. Patent Application No. 2004/0145805) in view of Brown (U.S. Patent No. 5,371,010). This rejection is respectfully traversed for the following reasons.

Claim 1 recites a device for counting fine particles comprising a transparent lower substrate having fine lattice patterns for counting the fine particles on

an upper surface thereof; a transparent unitary upper substrate stacked on the lower substrate, wherein the upper substrate comprises a recess formed in a bottom surface of the upper substrate; a fill chamber formed by said recess and said transparent lower substrate when the substrates are stacked together; and an injecting hole formed on an upper surface of said upper substrate leading into the recess for injecting the sample into the fill chamber. An area of the fill chamber in the upper and lower substrates is transparent for a microscopic observation; and the fine lattice patterns are formed in a predetermined place of the area in which the fill chamber is formed on the lower substrate. The fine lattice patterns are positive grids which are embossed on the upper surface of the lower substrate. The upper and lower substrates are directly bonded and thus form an integrated body. This is not taught, disclosed or made obvious by the prior art of record.

As discussed during the interview, Applicant has amended claim 1 to recite a transparent **unitary** upper substrate, and that the fine lattice patterns are positive grids which are embossed on **the upper surface** of the lower substrate. These features, as recited in the claimed combination, are not taught in the prior art.

Qiu discloses a counting device, which includes an upper part 20, a lower part 40, and a connecting layer 30. The connecting layer itself is made of 3 three layers: 2 outer pressure sensitive adhesive layers 34 and a middle polymer film layer 32. There are ports 22 and 24 for each counting chamber formed in the connecting layer 30. The Examiners, during the interview, explained their position that the combination of the upper part 20 and the connecting layer 30 form "an upper substrate"

as recited in the previously pending claim 1. However, in view of the amendment to recite a unitary upper substrate, the combination of upper part 20 and connecting layer 30 no longer meet the claimed limitation, and the Examiners agreed with this conclusion.

Further, Applicant respectfully submits that the use of a unitary upper substrate, in which a recess is disposed which forms the fill chamber when the upper substrate and lower substrate are bonded to one another, would not have been obvious to one of ordinary skill in the art based on the teachings of Qiu to use a multi-layered adhesive layer to form the fill chamber when joined to the top and bottom substrates. Qiu teaches that adhesives can be used to define the chamber height. Para. [0041]-[0043]. This construction causes problems because of the impurities that may be found in adhesives, and the inaccuracies that may result from using such a soft material as a wall for the chamber. Although Qiu teaches the use of polymer film liners, the liners are not to cover the chamber walls, but to cover the adhesive side on either side of the spacer film³⁰. Para. [0040], lines 5-7.

Additionally, the Office Action acknowledges that Qiu does not teach grids formed by embossing on the lower substrate, and cites Brown for this teaching. Applicant has amended the claim to recite that the raised grids are formed on the upper surface of the lower substrate. In Brown, as agreed in the interview, the grids are formed on the lower surface of the lower substrate, so that they are visible from above through the transparent substrate. Thus, Applicant's claimed positive grids embossed on the upper surface of the lower substrate is not taught by Brown. Thus, even

assuming arguendo only, that one of ordinary skill in the art would have been motivated to combine Qiu and Brown, the resulting combination would have lacked all the elements of claim 1.

For at least these reasons, Applicant respectfully submits that claim 1 is patentable over the prior art of record whether taken alone or in combination as proposed in the Office Action. Claims 2, 4-5 and 7-9 are believed to be patentable in and of themselves, and for the reasons discussed above with respect to claim 1, from which they depend.

In view of the above amendment and remarks, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections of record. Applicant submits that the application is in condition for allowance and early notice to this effect is most earnestly solicited.

If the Examiner has any questions, he is invited to contact the undersigned at 202-628-5197.

Respectfully submitted,

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